DETAILED ACTION

Response to Arguments

1. Applicants' arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. Since the new grounds of rejection were necessitated by Applicants' amendment, the instant Office action has been made final.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 8-14, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,672,993 (Bilak) in view of U.S. Pat. No. 3,339,883 (Drake). Bilak disclose a joint comprising a push rod (12), a protruding portion (27), a main body (15, 16), an upper end (adjacent element 27 in figure 4), a lower end (adjacent element 23 in figure 4), a push rod storage space (19), a communication path (below the lead line for element 19 in figure 3), a seal structure (surface of element 27), a female threaded part (21), a nut (30) having a male threaded part (surface of element 30), forming a seal structure by directly contacting a first tapered part (18), a portion (portion of element 27) of the protruding portion (27), a second tapered part (bottom surface of element 27), a projection part (26), a third tapered part (upper surface of element 27), and a forth tapered part (bottom surface of element 29) but lacks the main body having a male thread and the nut having a female threaded portion. Drake teaches a joint comprising a main body (10) having a male threaded part (26) and a nut (58) having a female

threaded part (64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the joint of Bilak by having the main body with male threads and the nut having a female thread as taught by Drake since switching the threaded connection will yield a predictable result.

4. Claims 5-7 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,672,993 (Bilak) in view of U.S. Pat. No. 3,339,883 (Drake) as applied to claims 1 and 11 above, and further in view of U.S. Pat. No. 6,113,157 (Wilkins). Bilak disclose a joint comprising a push rod (12), a protruding portion (27), a main body (15, 16), an upper end (adjacent element 27 in figure 4), a lower end (adjacent element 23 in figure 4), a push rod storage space (19), a communication path (below the lead line for element 19 in figure 3), a seal structure (surface of element 27), a female threaded part (21), a nut (30) having a male threaded part (surface of element 30), forming a seal structure by directly contacting a first tapered part (18), a portion (portion of element 27) of the protruding portion (27), a second tapered part (bottom surface of element 27), a projection part (26), a third tapered part (upper surface of element 27), and a forth tapered part (bottom surface of element 29) but lacks the seal structure forming part including a convex spherical surface and a separate sealing member in a groove. Wilkins teaches a joint member comprising a spherical sealing surface (surface of elements 20 and 14), a seal member (34), and a groove (surrounding element 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the joint of Bilak by adding a spherical sealing surface and a seal member in a groove as taught by Wilkins in order to allow for a sealing structure that that allows for misalignment of main body and nut and to further seal the joint in the coupled position.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Fristoe Jr. whose telephone number is (571) 272-4926. The examiner can normally be reached on Monday-Friday, 7: 00 a.m-4: 30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin O. Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John K. Fristoe Jr./
John K. Fristoe Jr.
Primary Examiner
Art Unit 3753

JK